

Q1
1. (Amended) An optical semiconductor device comprising:
an active region; and
a p-doped cladding region disposed on one side of the active region;
wherein an electron-reflecting barrier is provided on the p-side of the active
region for reflecting both Γ -electrons and X-electrons, an energy level of the Γ -
conduction band of at least a part of the electron-reflecting barrier being greater than an
energy level of the Γ -conduction band of the p-doped cladding region.

Q2
20. (Amended) An optical semiconductor device comprising:
an optical guiding region;
an active region having at least one energy well, said active region being
disposed in said optical guiding region; and
n-doped and p-doped cladding regions disposed on opposite sides of the optical
guiding region;
wherein an electron-reflecting layer for reflecting Γ -electrons is provided at the p-
side of the active region; and
wherein the electron-reflecting layer contacts with the optical guiding region so
that the Γ -conduction band of the optical guiding region is substantially degenerate with
the X-conduction band of the electron-reflecting layer.

✓ Please cancel claims 25-28 without prejudice or disclaimer.

Attached hereto is an Appendix which includes the above-noted changes in
annotated form.

REMARKS

Claims 1-24 are now pending in the application. Claims 1 and 20 have been
amended herein, and claims 25-28 have been canceled. Favorable reconsideration of
the application, as amended, is respectfully requested.